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In abstracts of patents only the names of firms have been given and the abstracts have been indexed under these names. Where two firms have jointly taken out a patent, or where a paper has two or more authors, the names have been arranged in the index alphabetically, the entry appearing under the first name, with cross references from the others.

Names beginning with de, la, le, ter, van, von, etc. are indexed under the surname.

Abbreviations of Names of Firms, etc.

The abbreviations listed below have been used in the *Journal*.

AATCC... ...	American Association of Textile Chemists and Colorists
Acna	Aziende Colori Nazionali Affini
AH	Arnold, Hoffman & Co. Inc.
BASF	Badische Anilin- & Soda-Fabrik A.G.
Br	Brotherton & Co. Ltd.
BrC	British Celanese Ltd.
CFM	Cassella Farbwerke Mainkur A.G.
Ciba	CIBA Ltd.
DH	Durand & Huguenin S.A.
DuP	E.I. du Pont de Nemours & Co. Inc.
Dymo	Dymo Industries
FBy	Farbenfabriken Bayer A.G.
FH	Farbwerke Hoechst A.G.
Fran	Compagnie Française des Matières Colorantes
General Aniline	General Aniline & Film Corpn.
Gy	Geigy, J. R., A.G.
	The Geigy Co. Ltd.
HH	Hardman & Holden Ltd.
HW	Hickson & Welch Ltd.
ICI	Imperial Chemical Industries Ltd.
LBH	L. B. Holliday & Co. Ltd.
LT	Laporte Titanium Ltd.
Monsanto ...	Monsanto Chemical Co.
S	Sandoz A.G.
	Sandoz Products Ltd.
YDC	Yorkshire Dyeware & Chemical Co. Ltd.

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Index to Subjects

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To reduce duplication of entries the following system has been adopted—

Acids, Agents, Dyes, Fibres, Oils, etc. are indexed under the qualifying term. For example, Dyes are entered under Acid, Azo, Direct, Disperse, Sulphur, Vat, etc. dyes.

Where an abstract describes a dye by both chemical and application class, e.g. Azo Acid Dye, the full entry is given under the *application* class with a cross-reference from the *chemical* class.

Abstracts dealing with processing, e.g. Bleaching of wool fibres, are indexed fully under the *process* with a cross-reference from the *fibre*.

Synonymous terms, e.g. Nylon and Polyamide, are cross-indexed; the full entry for a particular abstract is given under the term used in that abstract.

Trade names for fibres, dyes, etc. are not cross-indexed with the general class to which they belong.

So many systems are adopted for chemical names in the various journals abstracted that, in order to bring together as many as possible, they have, in general, been indexed under the parent group followed by the substituents arranged alphabetically.

The em rule (—) has been used to indicate the repetition from the preceding entry of all words before a comma. Thus, in

Dyeing acrylic fibres, with basic dyes
— with direct dyes

the rule indicates that "acrylic fibres" is repeated. If no punctuation mark is given the whole entry is repeated. Thus, in

Dyeing anodised aluminium
— and its alloys

the rule indicates that "anodised aluminium" is repeated.

A second em rule indicates repetition of all words up to the second comma, and so on.

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931	38
945	79
2,922,692	139
693	135
696	170
724	80
726	123
2,923,591	83
597	142
626	84
698	141
703	176
904	144
2,924,510	131
520	139
532	144
539	148
549	143
609	178
2,925,313	177
315	148
317	142
333	126
354	144
359	142
2,925,625	144
639	123
641	187
2,926,061	148
062	141
083	135
085	142
096	123
097	141
100	144
107	123
987	123
2,927,025	140
026	129
040	129
041	129
045	148
082	136
091	130
526	170
839	260
862	180
863	180
866	178
870	187
872	185
2,928,340	170
713	102
714	192
758	339
799	171
2,929,127	218
743	232
788	219
799	220
810	178
2,930,099	233
716	220
760	179
775	224
778	219
796	223
2,931,113	218
693	260
694	220
695	220
696	220
697	220
698	220
725	230
752	234
786	224
2,932,550	226
580	224
582	234
587	230
589	234
616	219
617	219
623	224
2,933,365	268
366	270
367	270
391	260
402	265
403	269
406	272
408	262
409	270
411	270
416	268
505	386
2,934,397	268
448	268
449	268
455	276
457	273
459	326
512	263
552	321
553	321
568	257
809	257
2,935,155	231
379	262
403	269
417	270
418	273
436	272
437	272
438	272
471	321
481	276
507	326
509	257
2,936,210	328
235	392
241	388
243	341
244	341
276	392
707	337
2,937,066	341
086	337
148	328
165	325
190	327
668	330
918	344
919	344
920	329
957	340
997	328
2,938,762	336
763	340
764	334
765	340
800	458
809	320
2,938,811	337
812	320
873	328
896	570
897	569
904	385
2,939,759	336
760	334
2,940,811	391
813	337
814	337
815	337
816	321
817	339
830	329
849	338
852	338
853	338
866	338
889	340
937	330
2,941,859	340
891	330
894	330
895	329
896	329
916	338
919	340
970	334
972	321
2,942,299	329
930	340
997	330
2,943,002	344
064	329
070	342
934	456
943	337
948	387
949	392
970	387
971	396
2,944,046	321
318	373
586	374
901	392
912	388
920	450
964	390
2,945,010	389
013	375
069	387
735	376
736	376
738	470
761	392
770	387
774	376
775	472
848	569
867	385
2,946,307	395
2,946,648	572
660	387
705	375
721	450
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760	461
761	461
762	461
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060	470
594	469
631	467
645	471
646	473
658	472
2,948,583	461
613	467
639	459
641	451
652	472
657	476
692	472
2,949,336	449
349	449
379	458
382	472
384	449
385	451
386	470
396	472
397	472
398	472
700	458
2,950,165	523
179	449
207	519
213	467
214	472
256	459
285	459
286	459
521	527
553	527
981	516
984	516
986	506
988	524
989	589
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052	506
054	532
055	532
739	524
770	536
786	505
789	506
821	532
826	532
855	513
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506	523
566	525
2,952,656	532
880	519
892	527
921	503
2,953,421	573
422	572
436	502
437	516
463	519
464	519
474	536
480	528
482	529
526	504
574	515
915	504
2,954,289	524
278	516
313	505
376	515
687	503
2,955,008	524
009	524
011	523
014	527
015	529
016	528
900	523
939	515
949	517
950	517
958	528
2,956,027	517
038	517
067	504
300	503
301	503
348	503
879	511
881	514
899	587
940	505
950	505
2,957,746	587
753	516
755	516
766	524
777	529
812	536
2,958,608	588
612	506
613	564
655	564
690	502
910	587
2,959,461	586
464	575
497	564
2,959,509	587
511	592
521	575
522	575
2,960,382	580
383	579
387	575
413	575
427	579
443	583
963	562
2,961,288	583
300	562
317	573
318	573
331	576
332	588
338	587
344	588
346	584
347	587
367	589
419	580
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364	584
374	584
375	584
398	576
456	592
494	574
763	562
2,963,152	562
378	576
380	576
382	587
395	580
2,964,382	575
392	575
403	589
417	576
425	590
426	588
531	574
592	574
755	591
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2,965,020	562
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LIST OF PERIODICALS ABSTRACTED

With Abbreviated Titles used

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Abbreviated Title	Journal	Address of Publisher
Amer. Dyestuff Rep.	American Dyestuff Reporter	44 E. 23rd Street, New York 10, N.Y., U.S.A.
Anal. Chem.	Analytical Chemistry	American Chemical Society, 20th and Northampton Streets, Easton, Pa., U.S.A.
Analyst	Analyst	7–8 Idol Lane, London E.C.3.
Australian J. Biol. Sci.	Australian Journal of Biological Sciences	Commonwealth Scientific and Industrial Research Organisation, 314 Albert Street, East Melbourne C2, Victoria, Australia.
Biochem. J.	Biochemical Journal	Cambridge University Press, Bentley House, 200 Euston Road, London N.W.1.
Biochim. Biophys. Acta	Biochimica et Biophysica Acta	Elsevier Publishing Company, Spuistraat 112, Amsterdam C, Holland.
Bull. centre recherches Bonnaterie	Bulletin du Centre de Recherches de la Bonneterie	Centre de Recherches de la Bonneterie, 270 Rue du Faubourg Croncels, Troyes (Aube), France.
Bull. Chem. Soc. Japan	Bulletin of the Chemical Society of Japan	5, 1-Chome, Surugadai-Kanda, Chiyoda-ku, Tokyo, Japan
Bull. Inst. Text. France	Bulletin de l'Institut Textile de France	59 Rue de la Faisanderie, Paris (16e), France.
Bull. Soc. industr. Mulhouse	Bulletin de la Société Industrielle de Mulhouse	12 Rue de la Bourse, Mulhouse (Haut-Rhin), France.
Canadian Textile J.	Canadian Textile Journal	Canadian Textile Journal Publishing Co. Ltd., 223 Victoria Avenue, Westmount, Montreal 6, Canada
Chem. Abs.	Chemical Abstracts	American Chemical Society, 1155 16th Street, N.W. Washington 6, D.C., U.S.A.
Chem. and Ind.	Chemistry and Industry	14 Belgrave Square, London S.W.1.
Chem. Trade J.	Chemical Trade Journal and Chemical Engineer	Davis Bros. (C.T.J.) Ltd., 19–21 Farringdon Street, London E.C.4.
Chemiefasern	Chemiefasern	Deutscher Fachverlag G.m.b.H., Frankfurt/Main, Freiherr-vom-Stein-Strasse 7, Germany.
Ciba Review	Ciba Review	Ciba Ltd., Basle, Switzerland.
Deutsche Farben-Zeitschrift	Deutsche Farben-Zeitschrift	Wissenschaftliche Verlag G.m.b.H., Stuttgart N, Birkenwaldstrasse 44, Germany
Die Farbe	Die Farbe	Musterschmidt-Verlag, Göttingen, Turmstrasse 7, Postfach 421, Germany.
Doklady Akad. Nauk S.S.S.R.	Doklady Akademii Nauk S.S.S.R.	Academy of Sciences of the U.S.S.R., Moscow, Shubinskii pereulok 10, U.S.S.R.
Dyer	The Dyer, Textile Printer, Bleacher and Finisher	Heywood & Co. Ltd., Drury House, Russell Street, Drury Lane, London W.C.2.
Endeavour	Endeavour	Imperial Chemical Industries Ltd., Millbank, London S.W.1.
Faserforsch. und Textiltech.	Faserforschung und Textiltechnik	Akademie-Verlag G.m.b.H., Berlin W.8, Leipzigerstrasse 3–4, Germany.
Helv. chim. Acta	Helvetica chimica Acta	Verlag Helvetica Chimica Acta, Basle 7, Switzerland.
Ind. Eng. Chem.	Industrial and Engineering Chemistry	American Chemical Society, 1155 16th Street, N.W., Washington 6, D.C., U.S.A.
Indian Textile J.	Indian Textile Journal	The Indian Textile Journal Ltd., "Surya Mahal", Military Square, Fort, Bombay, India.
Izvestiya Akad. Nauk S.S.S.R., otdel. khim. nauk	Izvestiya Akademii Nauk S.S.S.R.	Academy of Sciences of the U.S.S.R., Moscow, Shubinskii pereulok 10, U.S.S.R.
J. Amer. Chem. Soc.	Journal of the American Chemical Society	1155 16th Street, N.W., Washington 6, D.C., U.S.A.
J. Amer. Leather Chem. Assocn.	Journal of the American Leather Chemists' Association	228 North Green Street, Easton, Pennsylvania, U.S.A.
J. Appl. Chem.	Journal of Applied Chemistry	Society of Chemical Industry, 14 Belgrave Square, London S.W.1.
J. Applied Polymer Sci.	Journal of Applied Polymer Science	Interscience Publishers Ltd., 88–90 Chancery Lane, London W.C.2.
J. Assocn. Off. Agric. Chem.	Journal of the Association of Official Agricultural Chemists	Association of Official Agricultural Chemists, Washington, D.C., U.S.A.
J. Biol. Chem.	Journal of Biological Chemistry	Mount Royal and Guilford Avenues, Baltimore 2, Maryland, U.S.A.
J.C.S.	Journal of the Chemical Society	Burlington House, London W.1.
J. Chem. Phys.	Journal of Chemical Physics	American Institute of Physics, Lancaster, Pennsylvania, U.S.A.
J. Chromatography	Journal of Chromatography	Elsevier Publishing Co., 110–112 Spuistraat, Amsterdam Holland.
J. Colloid Sci.	Journal of Colloid Science	Academic Press, Mount Royal and Guildford Avenues, Baltimore, Maryland, U.S.A.
J. Indian Chem. Soc.	Journal of the Indian Chemical Society	92 Acharya Prafulla Chandra Road, Calcutta 9, India.
J. Oil & Col. Chem. Assocn.	Journal of the Oil and Colour Chemists' Association	Wax Chandlers' Hall, Gresham Street, London E.C.2.
J. Opt. Soc. Amer.	Journal of the Optical Society of America	American Institute of Physics, Prince and Lemon Streets, Lancaster, Pennsylvania, U.S.A.
J. Physical Chem.	Journal of Physical Chemistry	American Chemical Society, 20th and Northampton Streets, Easton, Pa., U.S.A.
J. Plastics Inst.	Transactions and Journal, The Plastics Institute	6 Mandeville Place, London, W.1.
J. Polymer Sci.	Journal of Polymer Science	Interscience Publishers Inc., 250 Fifth Avenue, New York 1, N.Y., U.S.A.
J. Res. Nat. Bur. Stand.	Journal of Research of the National Bureau of Standards	Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., U.S.A.

LIST OF PERIODICALS ABSTRACTED—*continued*

Abbreviated Title	Journal	Address of Publisher
J. Roy. Inst. Chem.	Journal of the Royal Institute of Chemistry	Royal Institute of Chemistry, 30 Russell Square, London W.C.1.
J. Soc. Leather Trades Chem.	Journal of the Society of Leather Trades' Chemists	100 Meadway, Harpenden, Herts.
J. Soc. Textile Cellulose Ind. Japan	Journal of the Society of Textile and Cellulose Industries, Japan (Sen-i Gakkaishi)	c/o Tokyo Institute of Technology, Ookayama, Meguro-ku, Tokyo, Japan.
J. Textile Inst.	Journal of the Textile Institute	10 Blackfriars Street, Manchester 3.
Kolloid. zhur.	Kolloidnȳĭ zhurnal (Colloid Journal of the U.S.S.R.)	Academy of Sciences of the U.S.S.R., Moscow K-31, Kuznetskiĭ most 9–10, U.S.S.R.
Makromol. Chem.	Die Makromolekulare Chemie	Dr. Alfred Hüthig Verlag, G.m.b.H., Wilckenstr. 3, Heidelberg, Germany
Melliand Textilber.	Melliand Textilberichte	Melliand Textilberichte KG, Rohrbacherstr. 76, Heidelberg, Germany.
Mh. Chem.	Monatshefte für Chemie und verwandte Teile anderer Wissenschaften	Springer-Verlag, Wien I, Mölkerbastei 5, Austria.
Nature	Nature	Macmillan & Co. Ltd., St. Martin's Street, London, W.C.2.
Off. Dig. Fed. Soc. Paint Technol.	Official Digest, Federation of Societies for Paint Technology	121 South Broad Street, Philadelphia 7, Pa., U.S.A.
Optics and Spectroscopy	English translation of— Optika i Spektroskopiya, q.v.	The Optical Society of America, Inc., 33 University Road, Cambridge 38, Massachusetts, U.S.A.
Optika i Spektroskopiya	Optika i Spektroskopiya	Academy of Sciences of the U.S.S.R., Moscow B 64, Podsosenskiĭ 21, U.S.S.R.
Pakistan J. Scientific and Industrial Res.	Pakistan Journal of Scientific and Industrial Research	39 Garden Road, Karachi–3, Pakistan.
Polish Tech. Abs.	Polish Technical Abstracts	Warsaw, Aleje Niepodleglosci 188, Poland.
Proc. Chem. Soc.	Proceedings of the Chemical Society	Burlington House, London W.1.
Proc. I.R.I.	Transactions and Proceedings Institution of the Rubber Industry	4 Kensington Palace Gardens, London W.8.
Proc. Roy. Soc.	Proceedings of the Royal Society	Burlington House, London, W.1.
Rec. Trav. chim.	Recueil des Travaux chimiques des Pays-Bas	Bureau Lange Vorhout 5, 's-Gravenhage, Holland.
Rept. Govt. Chem. Ind. Research Inst. Tokyo	Reports of the Government Chemical Industrial Research Institute, Tokyo	1-chome, Hon-machi, Shibuya-ku, Tokyo, Japan.
Silk and Rayon	Skinner's Silk and Rayon Record	St. James House, 44 Brazennose Street, Manchester 2.
Studii şi Cercetări Ştiinţe Chimice (Timişoara)	Studii şi Cercetări Ştiinţifice, Timişoara, Seria Ştiinţe Chimice	Academia Republicii Populare Romîne, Baza de Cercetări Ştiinţifice, Timişoara, Bul. Mihai Viteazul 24, Roumania.
Svensk Papperstidning	Svensk Papperstidning	Villagatan 1, Stockholm O, Sweden.
S.V.F. Fachorgan	S.V.F. Fachorgan für Textilveredlung	Basle 1, Postfach 201, Switzerland.
Teintex	Teintex, incorporating Revue Générale des Matières Colorantes	60 rue Richelieu, Paris (2e), France.
Teinture et Apprêts	Teinture et Apprêts	Société d'Éditions Techniques de la Manutention Textile, 12 Rue d'Anjou, Paris (8e), France.
Tekhnol. tekstil. Prom.	Izvestiya vȳshikh uchebnȳkh zavedenii, Tekhnologiya tekstil'noĭ promȳshlennosti (Technology of the Textile Industry of the U.S.S.R.)	Ivanova, ulitsa Fridrikha Engel'sa 21, U.S.S.R.
Tekstil. prom.	Tekstil'naya promȳshlennost' (Textile Industry of the U.S.S.R.)	Gizlegprom, Moscow, Tsentr, ulitsa Kirova 39, 6-I etazh Komnata 620, U.S.S.R.
Tex	De Tex	Klosterstraat 17, Enschede, Holland.
Text. Manuf.	Textile Manufacturer	31 King Street West, Manchester 3.
Text. Rec.	Textile Recorder	Old Colony House, South King Street, Manchester 2.
Text. Research J.	Textile Research Journal	Prince and Lemon Streets, Lancaster, Pennsylvania, U.S.A.
Textil Praxis	Textil Praxis	Konradin-Verlag Robert Kohlhammer G.m.b.H., Stuttgart 1, Postfach 625, Germany.
Textil-Rund.	Textil-Rundschau	Verlag Zollikofer & Co., St. Gallen, Switzerland.
Textile J. of Australia	Textile Journal of Australia	19–47 Jeffcott Street, Melbourne, Australia.
Tinctoria	Tinctoria	Via Negroli 51, Milan, Italy.
Tint. ind.	Tintoreria Industrial	Av. de Mayo 715, Buenos Aires, Argentina.
Trans. Faraday Soc.	Transactions of the Faraday Society	Aberdeen University Press Ltd., 6 Upper Kirkgate, Aberdeen, Scotland.
Trans. I.R.I.	Transactions and Proceedings Institution of the Rubber Industry	4 Kensington Palace Gardens, London W.8.
Trans. Plastics Inst.	Transactions and Journal The Plastics Institute	6 Mandeville Place, London W.1.
Ukrain. khim. zhur.	Ukrainskiĭ khimicheskiĭ zhurnal (Ukrainian Chemical Journal)	Kiev, 30 ulitsa Vladimirskaya 55, U.S.S.R.
Zesz. Nauk. Politech. Łódz.	Zeszyty Naukowe Politechniki Łódzkiej	Łódz, Gdanska 155, Poland.
Zhur. obshch. khim.	Zhurnal obshchei khimii (Journal of General Chemistry of the U.S.S.R.)	Academy of Sciences of the U.S.S.R., Leningrad B-164, Mendeleevskaya liniya, U.S.S.R.
Zhur. prikład. khim.	Zhurnal prikladnoĭ khimii (Journal of Applied Chemistry of the U.S.S.R.)	Academy of Sciences of the U.S.S.R., Leningrad B-164, Mendeleevskaya liniya, U.S.S.R.

ABBREVIATIONS AND SYMBOLS
USED IN *THE JOURNAL OF THE SOCIETY OF DYERS AND COLOURISTS*

No distinction is made in abbreviations between singular and plural

In special cases abbreviations and symbols other than those in the list may be used, but as far as possible they will be as given either in standard English dictionaries or in *British Standard* 1991 : Part 1 : 1954

absolute	abs.
alkyl radical (in chemical formula)	Alk
alternating current	a.c.
ampère	A
Angström unit	Å
anhydrous	anhyd.
approximate, -ly	approx., ca.
aqueous	aq.
aryl radical (in chemical formula)	Ar
asymmetric (applied to organic compounds)	*as-*
atmosphere (pressure unit)	atm
atomic	at.
atomic weight	at. wt.
Baumé	Bé
boiling point	b.p.
British Patent	*BP*
British thermal unit	B.t.u.
calculated	calc.
calorie	cal
Celsius (centigrade)	C
centi	c
compound	cpd.
concentrated	conc.
concentration	concn.
configuration (carbohydrates and amino acids)	D-, L-
constant	const.
containing more than *n* carbon atoms	containing $> n$ C
corrected	corr.
crystal, -line, -lised (adjective)	cryst.
cubic centimetre (etc.)	cm^3 (etc.)
curie	c
decomposition	decomp.
degree	deg.
degree of polymerisation	D.P.
degree of substitution	D.S.
density	ρ
derivative	deriv.
dextrorotatory	*dextro*, (+)-
dilute	dil.
direct current	d.c.
distil, -led	dist.
electromotive force	e.m.f.
equation	eqn.
equimolecular	equimol.
equivalent	equiv.
Fahrenheit	F
foot	ft
freezing point	f.p.
French Patent	*FP*
gallon (Imperial)	gal
gallon (U.S.A.)	gal(U.S.A.)
German Patent	*GP*
gram	g
gram-molecule	mole
greater than	$>$
halogen (in chemical formula)	Hal
horse power	h.p.
hour	h
hydrogen ion concentration (negative logarithm)	pH
inch	in.
infrared	i.r.
inorganic	inorg.
insoluble	insol.
kilocalorie	kcal
kilogram	kg
laevorotatory	*laevo*, (−)-
less than	$<$
litre	l.
logarithm (decadic)	log
logarithm (natural)	ln
maximum	max.
melting point	m.p.
meta-	*m-*
metre	m
microgram	μg
micron	μ
milli-	m
millilitre	ml
minimum	min.
minute	min
molar (concentration)	M
molecular, -e	mol.
molecular weight	mol. wt.
normal (concentration)	N
normal (organic compound)	n-
not greater than	$\not>$
not less than	$\not<$
organic	org.
ortho-	*o-*
ounce	oz
para-	*p-*
parts per million	p.p.m.
Patent	*P*
poise	P
potential difference	p.d.
pound	lb
precipitate	ppt.
precipitated	pptd.
precipitation	pptn.
proportional to	$\propto$
pseudo- (organic compound)	ψ-
qualitative(ly)	qual.
quantitative(ly)	quant.
racemic (organic chemistry)	*r-*
recrystallised	recryst.
refractive index	*n*
relative humidity	r.h.
revolutions per minute	rev/min
röntgen	r
saturate(d)	sat.*
second	s
secondary (organic compound)	*s-*
soluble	sol.
solution	soln.
specific	sp.
specific gravity	sp. gr.
square in. (etc.)	in^2 (etc.)
stokes	S
substituted	subst.*
substitution on nitrogen, oxygen, etc.	*N-*, *O-*, etc.
symmetrical (organic compound)	*s-*
temperature	temp.
tertiary- (organic compound)	*t-*
turns per inch	turns/in
Twaddell	Tw
United States Patent	*USP*
ultraviolet	u.v.
unsaturated	unsat.*
unsubstituted	unsubst.*
viscosity	η
volt	V
volume	vol.
watt	W
wavelength	λ
weight	wt.
yard	yd

* Only in describing general formulas in the Abstracts Section